

WE CLAIM:

1. A method of performing remote notification of records each having a respective record identifier, the method comprising:

5 maintaining a record-user mapping which associates with each of a plurality of record identifiers a respective one or more user names;

for each record upon which remote notification is to be performed:

10 a) obtaining the record's record identifier's respective one or more user names from the record-user mapping;

b) for each user name in the record's record identifier's respective one or more user names obtaining from a user name-addressable entity mapping a respective addressable
15 entity and sending a notification of the record to the addressable entity.

2. A method according to claim 1 further comprising maintaining the user name-addressable entity mapping from each user name to the respective addressable entity.

20 3. A method according to claim 2 wherein the user name-addressable entity mapping is a trusted mapping.

4. A method according to claim 1 adapted to perform remote notification of records generated by a certificate management system, wherein obtaining from a user name-addressable entity mapping a respective addressable entity
25 comprises obtaining a respective addressable entity from a respective certificate stored in a repository of published certificates.

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5. A method according to claim 4 wherein the certificate management system comprises a PKI (Public Key Infrastructure).

6. A method according to claim 4 further comprising:

maintaining the repository of published certificates
5 in which is stored for each of a plurality of user names the
respective certificate in which is identified the respective
addressable entity.

7. A method according to claim 1 wherein the addressable entity is an E-mail address.

10 8. A method according to claim 1 wherein each user name
is a distinguished name in accordance with X.500.

9. A method according to claim 4 wherein the repository of published certificates is maintained in accordance with the X.500 series of recommendations.

15 10. A method according to claim 9 further comprising for
each certificate storing the respective addressable entity in a
certificate extension field of the certificate.

11. A method according to claim 10 wherein storing the
respective addressable entity in a certificate extension field
20 of the certificate comprises storing the respective addressable
entity in a subject alternative name extension.

12. A method according to claim 4 further comprising
obtaining a new set of records for processing from time to
time, and conducting steps a) and b) for each record in the new
25 set of records.

13. A method according to claim 11 further comprising storing record reading parameters which determine circumstances under which the new set of records for processing is to be

obtained, and obtaining the new set of records for processing in accordance with the record reading parameters.

14. A method according to claim 1 further comprising protecting each notification message by encryption and/or
5 digital signature.

15. A method according to claim 4 further comprising protecting each notification message by encryption and/or digital signature.

16. A method according to claim 4 further comprising
10 verifying authenticity of the respective certificate before sending the notification to the addressable entity obtained from the respective certificate.

17. A method according to claim 1 further comprising maintaining an identification of a language of choice for each
15 user name, before sending a notification to an addressable entity obtained for a particular user name, determining the particular user name's language of choice and including a translation of text in the notification message into the language of choice.

20 18. A method according to claim 1 further comprising:

identifying at least one record identifier for which target audit record processing is to be performed, the target audit record processing comprising:

for each record identifier for which target audit
25 record processing is to be performed reading from the associated record a target user name, obtaining from the user name-addressable entity mapping a respective addressable entity for the target user name and sending a notification of the record to the addressable entity.

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for each record identifier for which target record processing is to be performed reading from the associated record a target user name, obtaining from the repository of published certificates a respective addressable entity for the target user name and sending a notification of the record to the addressable entity.

identifying at least one record identifier for which target record processing is to be performed, the target audit record processing comprising:

21. A method according to claim 20 further comprising maintaining the user name-addressable entity mapping from each user name to the respective addressable entity.

22. A method according to claim 21 wherein the user name-addressable entity mapping is a trusted mapping.

30. A method according to claim 29 wherein storing the respective addressable entity in a certificate extension of the certificate comprises storing the respective addressable entity in a subject alternative name extension.

31. A method according to claim 23 further comprising obtaining a new set of records for processing from time to time.

32. A method according to claim 31 further comprising storing record reading parameters which determine circumstances under which the new set of records for processing is to be obtained, and obtaining the new set of records for processing in accordance with the record reading parameters.

33. A method according to claim 20 further comprising protecting each notification message by encryption and/or digital signature.

34. A method according to claim 20 further comprising protecting each notification message by encryption and/or digital signature.

35. A method according to claim 23 further comprising verifying authenticity of the respective certificate before sending the notification to the addressable entity obtained from the respective certificate.

36. A method according to claim 20 further comprising maintaining an identification of a language of choice for each user name, before sending a notification to an addressable entity obtained for a particular user name, determining the particular user name's language of choice and including a translation of text in the notification message into the language of choice.

37. An apparatus comprising:

a record-user mapping memory structure which associates for each of a plurality of record identifiers a respective one or more user names;

5 a receiving interface for receiving a set of records to be processed for remote notification, each record having a respective record identifier;

a notification interface adapted to send messages to addressable entities;

10 a record processing entity adapted to process the set of records by obtaining the record's record identifier's respective one or more user names from the record-user mapping, and for each user name in the record's record identifier's respective one or more user names obtaining from a user name-
15 addressable entity mapping a respective addressable entity and sending a notification of the record to the addressable entity through the notification interface.

38. An apparatus according to claim 37 in combination with the user name-addressable entity mapping from each user
20 name to the respective addressable entity.

39. An apparatus according to claim 37 adapted to perform remote notification of records generated by a certificate management system, wherein the user name-addressable entity mapping is part of a repository of published certificates, and
25 wherein the record processing entity is adapted to obtain the respective addressable entity from a respective certificate stored in the repository of published certificates.

40. An apparatus according to claim 39 wherein the certificate management system comprises a PKI (public key infrastructure).

41. An apparatus according to claim 39 in combination
5 with the repository of published certificates.

42. An apparatus according to claim 39 wherein the addressable entity is an E-mail address, and the notification interface is an E-mail message sending component.

43. An apparatus according to claim 39 further comprising
10 a configuration file adapted to store record reading parameters, wherein the apparatus is adapted to collect through the record receiving interface a new set of records for processing from time to time.

44. An apparatus according to claim 37 further
15 comprising:

a target record memory structure adapted to contain an identification of at least one record identifier for which target record processing is to be performed;

wherein the record processing entity is further
20 adapted to process each record identifier for which target record name processing is to be performed by reading from the associated record a target user name, obtaining from the user name-addressable entity mapping a respective addressable entity for the target user name and sending a notification of the
25 record to the addressable entity.

45. An apparatus according to claim 39 further comprising:

46. An apparatus comprising:

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15         a notification interface adapted to send messages to
        addressable entities;
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20 a record processing entity adapted to process each
record in the set of records having a record identifier for
which target record name processing is to be performed by
reading from the record a target user name, obtaining from a
user name-addressable entity mapping a respective addressable
25 entity for the target user name and sending a notification of
the record to the addressable entity.

47. An apparatus according to claim 46 wherein the user-name addressable entity mapping comprises a repository of

published certificates which contains for each user name a respective addressable entity.

48. An apparatus according to claim 47 in combination with the user name-addressable entity mapping from each user name to the respective addressable entity.

49. An apparatus according to claim 47 adapted to perform remote notification of records generated by a certificate management system.

50. An apparatus according to claim 49 wherein the certificate management system comprises a PKI (Public Key Infrastructure).

51. An apparatus according to claim 47 wherein the addressable entity is an E-mail address, and the notification interface is an E-mail message sending component.

52. An apparatus according to claim 47 further comprising a configuration file adapted to store record reading parameters, wherein the apparatus is adapted to collect through the record receiving interface a new set of records for processing from time to time in accordance with the record reading parameters.

53. A computer readable medium having instructions stored thereon for instructing a processing platform to implement a method according to claim 1.

54. A computer readable medium having instructions stored thereon for instructing a processing platform to implement a method according to claim 4.

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55. A computer readable medium having instructions stored thereon for instructing a processing platform to implement a method according to claim 20.

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